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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,610	11/26/2003	Gerald James Hess JR.	4069 / GETS 5294.2	7096

321 7590 06/15/2004

SENNIGER POWERS LEAVITT AND ROEDEL
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

LE, MARK T

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/722,610	HESS ET AL.	
	Examiner	Art Unit	
	Mark T. Le	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-66 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 25-66 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/26/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. The prior art cited in the indicated prior application has been reviewed.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 25, 27-29, 37-38, 40-41, 43-44, 46-47, 49, 51-53, 61-62 and 64-65 are rejected under 35 U.S.C. 102(b) as being anticipated by Spigarelli (US 4,401,035).

Spigarelli discloses a control system as recited in the instant claims, including first and second processing module 10 in first and second locomotives 10 and in communication with communication link 11 to vary the power operating mode of each locomotive to a different setting in accordance with predetermined parameters so as to minimize fuel consumption.

Regarding the instant claimed power operating mode of the locomotive being selected to optimize the braking of the first and second locomotives, note that the system of Spigarelli is inherently capable of the instant claimed intended use; therefore, the instant claimed intended use is considered met. Further, Applicant should also consider lines 42-44, column 16 of Spigarelli; wherein, the deceleration of the consist, which is a part of a braking, is taken into account in determining the power settings of the locomotives units.

Regarding the operating parameter of the locomotive in which a crew member is riding is reduced as compared to that of another locomotive, note that in the control

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system of Spigarelli, the power operating mode of the rear locomotive is preferred to be reduced before other locomotive units toward to the front; therefore, during a crew member is riding in the rear locomotive that is also in a power reduction mode, the instant claimed feature is considered meet.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 25-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis (US 5,969,643) in view of Spigarelli (US 4,401,035).

Curtis discloses a control system for a locomotive consist, similar to that recited in the instant claims; wherein, the locomotives are controlled from the lead locomotive through a radio communication control system, and a GPS link is provided to enhance

the safety and efficiency of a power distribution system for controlling the tractive effort and braking capacity. However, it is noted that Curtis does not disclose different power operating modes.

Spigarelli, as described in paragraph 3 above, discloses a system for controlling a locomotive consist; wherein, the locomotives in the consist are configured for operating at different power operating modes to enhance the power efficiency of the system.

In view of Nickles, it would have been obvious to one skilled in the art to modify the system of Curtis to include different power operating modes, in a manner similar to that taught by Nickles, so as to enhance the power efficiency of the system.

Regarding the instant claimed communication link being a wired communication system note that the wired communication through train line 11 of Spigarelli. In view of Spigarelli, it would have been obvious to one skilled in the art to alternative convert the radio communication system of Curtis into a wired communication system where it is applicable, in a manner similar to that taught by Spigarelli, so as to achieve the expected advantages of wired communication links.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant should further consider the structures of Montgomery, Hawthorne, Nickles '385, '364, and Perlmutter.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark T. Le whose telephone number is 703-308-3663. The examiner can normally be reached on Mon-Fri (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark T. Le
Primary Examiner
Art Unit 3617

mle
6/2/04